

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/002018

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F04B7/00 F04B15/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 345 883 A (WESTERLUND ET AL) 24 August 1982 (1982-08-24) abstract; figures 3,6 column 6, line 52 - column 6, line 62; figures column 7, line 20 - column 7, line 29 column 12, line 3 - column 12, line 17	1-37
A	GB 1 063 020 A (EUGENE LEE SHERROD) 22 March 1967 (1967-03-22) cited in the application page 2, column 2, line 80 - page 5, column 2, line 93; figures 1,3	1-37
A	US 5 380 174 A (SCHWING ET AL) 10 January 1995 (1995-01-10) abstract; figures 1,2	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

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- \*&\* document member of the same patent family

Date of the actual completion of the international search

13 June 2005

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20/06/2005

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/002018

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4345883	A	24-08-1982	US 4533300 A	06-08-1985
GB 1063020	A	22-03-1967	NONE	
US 5380174	A	10-01-1995	DE 4209471 A1	30-09-1993
			AT 132580 T	15-01-1996
			BR 9301287 A	28-09-1993
			CA 2092397 A1	25-09-1993
			CN 1089691 A ,C	20-07-1994
			DE 59301283 D1	15-02-1996
			EP 0562498 A1	29-09-1993
			ES 2089617 T3	01-10-1996
			GR 3019136 T3	31-05-1996
			JP 6042453 A	15-02-1994